

Notice of Allowability

Application No.

10/797,687

Examiner

Tiffany A. Fetzner

Applicant(s)

FUJITA ET AL.

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/27/2005 & the telephonic interview of 3/14/2006.
2. ☒ The allowed claim(s) is/are examiner amended claims 9-17 of the March 14th 2006 office action.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 3/14/2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with **Attorney Robert P. Michael Reg. No. 35,614** on March 14th 2006 along with authorization to charge any necessary fees to applicant's deposit account. However, no fees are believed to be necessary at this time
3. The application has been amended as follows:

A) Replace claims 9 and 10 of the December 27th 2005 amendment and response with the following **Examiner amended claims 9 and 10**:

Claim 9 --- A fixing device, comprising:

a heating roller which applies heat onto a non-fixed toner image formed on a recording medium so as to fuse said non-fixed toner image, wherein said heating roller is rotatably supported on a shaft so that a circumferential surface of said heating roller contacts said recording medium, which bears said non-fixed toner image, while rotating; and

a temperature detecting unit that includes a temperature detecting element **in order** to detect a surface temperature of said circumferential surface of said heating roller, and a **flat spring** support member on which said temperature detecting element is mounted at a **temperature** detecting position;

wherein said temperature detecting unit is disposed in such a manner that said flat spring support member press-contacts said circumferential surface of said heating roller at a contacting position residing on said **flat spring** support member in a rotating direction of said heating roller; and

wherein said **temperature** detecting position **of the temperature detecting unit** is located upstream from said contacting position **of said flat spring support member** in said rotating direction of said heating roller. ---

Claim 10 --- The fixing device of **claim 9**, wherein said **flat spring** support member comprises an elastic material and said **flat spring** support member press contacts said circumferential surface by means of elastic deformation of said **flat spring** support member. ---

B) Insert claims 11 and 12 of the December 27th 2005 amendment and response:

Claim 11 --- The fixing device of **claim 9**, wherein a distance between said detecting position and said contacting position is at most equal to 1.0 mm in said rotating direction of said heating roller. ---

Claim 12 --- The fixing device of **claim 9**, wherein a heat-resistant film is disposed between said temperature detecting element and said circumferential surface of said heating roller. ---

C) Replace claims 13 through 17 of the December 27th 2005 amendment and response with the following Examiner amended claims 13 through 17:

Claim 13 --- The fixing device of **claim 9**, wherein a distance between said **temperature** detecting position and said contacting position **on said flat spring support member** is adjustable. ---

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Claim 14 --- The fixing device of **claim 9**, wherein said **flat spring** support member has a plate-shape, and an end portion of said **flat spring** support member is fixed rigidly, while another end portion of said **flat spring** support member press contacts said circumferential surface **of said heating roller** at said contacting position **of said flat spring support member** in said rotating direction of said heating roller. ---

Claim 15 --- The fixing device of **claim 14**, wherein said **flat spring** support member includes two plate members, and said temperature detecting element is supported between said two plate members. ---

Claim 16 --- The fixing device of **claim 15**, wherein said two plate members are covered with a heat-resistant film so that said **flat spring** support member press-contacts said circumferential surface through said heat-resistant film. ---

Claim 17 --- An image forming apparatus, comprising
an image forming section which forms a non-fixed toner image on a recording medium; and
a fixing device which fixes said non-fixed toner image, formed by said image forming section, onto said recording medium wherein said fixing device, comprises:
a heating roller which applies heat onto said non-fixed toner image formed on said recording medium so as to fuse said non-fixed toner image, wherein said heating roller is rotatably supported on a shaft so that a circumferential surface of said heating roller contacts said recording medium, which bears said non-fixed toner image, while rotating; and
a temperature detecting unit that includes a temperature detecting element **in order** to detect a surface temperature of said circumferential surface of said

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heating roller, and a **flat spring** support member on which said temperature detecting element is mounted at a **temperature** detecting position;

wherein said temperature detecting unit is disposed in such a manner that said **flat spring** support member press-contacts said circumferential surface of said heating roller at a contacting position residing on said **flat spring** support member in a rotating direction of said heating roller; and

wherein said **temperature** detecting position of said **temperature detecting unit** is located upstream from said contacting position of said **flat spring support member** in said rotating direction of said heating roller. ---

The following is an examiner's statement of **Reasons for Allowance**:

4. With respect to **Examiner amended independent claims 1, and 17**: these examiner amended Independent claims are considered to be allowable over the prior art of record because the prior art of record does not disclose or suggest a **fixing device** comprising: ...a temperature detecting unit that includes a temperature detecting element **in order** to detect a surface temperature of said circumferential surface of said heating roller, and a **flat spring support member on which said temperature detecting element is mounted at a temperature detecting position; wherein said temperature detecting unit is disposed in such a manner that said flat spring support member press contacts said circumferential surface of said heating roller at a contacting position residing on said flat spring support member in a rotating direction of said heating roller; and wherein said temperature detecting position of the temperature detecting unit is located upstream from said contacting position of said flat spring support member in said rotating direction of said heating roller,**" in combination with each of the remaining limitations of each of the claims. It is however, the entire combination of the claim limitations, in **examiner amended claims 9 and 17**, taken as a whole that constitutes both the novelty and non-obviousness of applicant's claims.

5. With respect to **dependent claims 10-16** as provided above each of these claims are considered to be allowable over the prior art of record, because each of these dependent claims, depend from **allowable examiner amended independent claim 9**.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner's Comment

Drawings

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7. The drawing corrections to figure 1 submitted December 27th 2005 are approved by the examiner. The official draftsman has also approved the corrected figure 1 submitted December 27th 2005 and the originally filed figures 2 through 6 submitted March 9th 2004.

8. See the attached PTO 948 form, of the Official Draftsman's Review attached to this office action. s are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Prior Art of Record

9. The **prior art made of record** and not relied upon is considered pertinent to applicant's disclosure. Applicant should review the structures and examiner comments concerning all of the references provided below.

A) Hasegawa et al., US patent application Publication 2002/0118977 A1 published August 29th 2002, and filed November 30th 2001; which corresponds to **Hasegawa et al.**, US patent 6,701,102 B2 listed below.

B) Hasegawa et al., US patent 6,701,102 B2 issued March 2nd 2004, and filed November 30th 2001.

C) *Izawa et al., US patent 6,763,205 B2 issued July 13th 2004, filed October 4th 2002. This reference is similar to the applied **Naohiro** reference, but with more variations and a slight referential differences in defining upstream and downstream. This reference has not been applied at this time, because the **Naohiro** reference more clearly shows each of applicant's currently pending claims. However the examiner suggests that the applicant review the teachings of this reference completely, since the number of component variations taught and shown by **Izawa et al.**, potentially include additional features, which are not currently recited in applicant's claims.

D) *Nobuo Japanese Publication **2001-005333** published January 12th 2001 from applicant's original IDS statement. This reference also appears to be applicable to all pending claims, however an 'unofficial' machine translation was not available to the examiner, and a complete understanding of what is shown in the figures is not possible without the full English text. This reference was not considered beyond the English

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Abstract provided. If applicant wishes this reference to be fully considered by the examiner, a complete 'certified' English translation of this reference should also be provided, with the next response by applicant.

E) **Fujita et al.**, US patent Application Publication 2004/0240912 A1 published December 2nd 2004, filed March 9th 2004, which is the corresponding publication of applicant's instant application, which is not prior art and is noted for the purposes of a complete record only.

F) ***Naohiro** Japanese Publication **2002-304084** published October 18th 2002

Conclusion

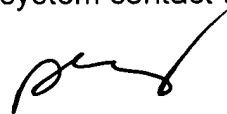
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is: (571) 272-2241. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm., and on alternate Friday's from 7:00am to 3:30pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached at (571) 272-2245. The **only official fax phone number** for the organization where this application or proceeding is assigned is **(571) 273-8300**.

12. Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TAF
March 14, 2006



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